

Appln. No. 09/818,765
Amendment filed September 26, 2005
Response to Office Action dated April 26, 2005

REMARKS

Claims 2-4 and 11-20 were pending in this application and have been rejected.

Claims 2-4, 14 and 15 have been amended to incorporate respectively the subject matter of claims 16-20, and so claims 16-20 have been cancelled. Claims 2-4, 14 and 15 are independent.

The Rejection Under 35 U.S.C. § 103(a)

Claims 2-4 and 11-15¹ have been rejected under 35 U.S.C. § 103(a) as being anticipated by German Patent Appln. 34 01 071 A1 to Vollert in view of U.S. Patent No. 5,903,292 to Scheffelin et al. Applicants respectfully traverse this rejection and submit the following arguments in support thereof.

All of the pending independent claims, claims 2-4, 14 and 15, now provide for the step of pressing the ink bag with a pressing plate to cause ink to be discharged, either to cause at least in part the discharge of ink or to cause a quantity of residual ink to be discharged.²

By way of example only, and not limitation, claim 2 describes a method of refilling a spent ink bag for use in an ink jet recorder. This involves the steps of providing the spent ink bag, the spent ink bag having an ink supply port that is selectively engageable with the ink jet recorder, positioning the spent ink bag, inserting an ink needle into the ink supply port of the spent ink bag, pressing the spent ink bag with a pressing plate, and discharging ink from the spent ink bag only through the port, the discharging being caused, at least in part, by the pressing

¹ It is noted that claims 16-20 are not mentioned in the first paragraph of this rejection; only claims 2-4 and 11-15 are said to be rejected (claims 16-20 were mentioned in the Office Action Summary sheet). Consequently, the status of claims 16-20 is unclear.

² In the interests of clarity, Applicants wish to point out that parent U.S. patent no. 6,224,199 contains independent claims which are similar to the present claims, but of different scope.

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of the spent ink bag with the pressing plate. After the discharging step comes a step of charging the spent ink bag only through the port with a specified quantity of ink.

The Office Action **admits**, in connection with claims 16-20, that Vollert does not teach the aspect of the invention involving pressing the ink bag with a pressing plate to cause ink to be discharged, either to cause at least in part the discharge of ink or to cause a quantity of residual ink to be discharged (Office Action, page 3, second full paragraph).³

Claims 2-4, 14 and 15 have been amended to incorporate the subject matter of claims 16-20, respectively. Consequently, the statements in the Office Action recognizing the differences between claims 16-20 and Vollert now apply instead to claims 2-4, 14 and 15.

The Office Action sought to remedy Vollert's deficiencies by combining Vollert with Scheffelin. However, as will now be explained, that combination still does not suggest the invention as claimed, and so that invention is patentable over this art.

After **admitting** Vollert does not disclose pressing the ink bag with a pressing plate to cause ink to be discharged, the Office Action noted Scheffelin teaches that before ink bag is refilled, the ink in the ink bag is drained or discharged by withdrawing the plunger of a syringe to cause negative pressure in the ink bag to press the ink bag into a compressed state. The Office Action justified the combination of these references by asserting as motivation that by creating negative pressure in the ink bag that negative pressure will draw all ink contained in the flaccid ink bag, into the ink bag **without applying any outside pressure force**.

³ "Voller[t] does not disclose the step of . . . pressing the spent ink bag to cause, at least in part or a quantity of residual ink, the discharging of ink through the second opening/port. . . ."

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The present invention, it will be appreciated, does precisely the Office Action contends Scheffelin does not, apply outside pressure force to the ink bag. One skilled in the art will appreciate that using a pressing plate in the manner now claimed would apply outside force to the ink bag, something that the Office Action says is not done in Scheffelin.

Accordingly, even if Vollert and Scheffelin are combined, the resulting combination still does not suggest all the features of the present invention.

Using a pressing plate to empty the ink bag, and not a syringe as taught by Scheffelin, confers a number of benefits. Applicants respectfully submit that where the ink discharge is carried out only by suction produced through use of the syringe, as disclosed by Scheffelin, part of the ink bag is likely to remain inflated, meaning the remaining ink cannot be discharged fully. In the worst possible case, the discharge step will conclude while air bubbles remain at part of the ink bag. Those skilled in the art will appreciate that the presence of such bubbles is highly undesirable, since bubbles in the ink can impair printer operation. Thus, even though there may be just a small possibility that that emptying the ink bag with only a syringe, as Scheffelin does, will leave bubbles, this is a severe enough problem that the possibility of this happening is still significant. In contrast, using a pressing plate in the manner claimed will not result in such residual bubbles. Accordingly, the invention as claimed offers a significant and beneficial advantage over Scheffelin.

For all the foregoing reasons, favorable consideration and withdrawal of this rejection are respectfully requested.

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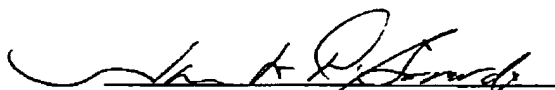
CONCLUSION

Applicants have made a diligent effort to place this application in condition for allowance and submit that the claims are in condition for allowance. If for any reason, however, the Examiner should deem that this application is not in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below to resolve any outstanding issues prior to issuing a further Office Action.

Other than the extension fee authorized in the accompanying Petition, no fees are believed to be due. Nevertheless, the Commissioner is authorized to charge any fee now or hereafter due in connection with the prosecution of this application to Deposit Account No. 19-4709.

Prompt and favorable consideration are respectfully requested.

Respectfully submitted,



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